Revised Date: 09/09

Chem 1031 General Chemistry I Laboratory (0-3-1)

Course Maximum Enrollment: 24

Special Facility or Equipment Needs/Safety Rules and Issues: Chemistry laboratory appropriately equipped Laboratory space with tables for student groups of 2-5, electrical outlets for each student group, counter space for display materials, storage cabinets for belongings, supplies, materials, glassware, chemicals, equipment, computers available, water/sinks, heat sources, a hood and a separate stockroom for secure storage and preparation. Multi media for demonstration and student use available. Safety goggles, lab apron or lab coat, hand towel

(If applicable) Lab Fee: none

Course Description: Laboratory exploration for Chem 1030.

Pre- or Co-requisites: Pre or co-requisite Chem 1030 and eligibility for Math 1010.

Texts and Readings: Laboratory manual-custom
General Chemistry: The Essential Concepts 5th edition or latest edition (ISBN: 13-978-007-3311-852) *Raymond Chang,* McGraw Hill.

Course Goals: This course is designed to reinforce concepts from the lecture course by giving the students practical experience in laboratory where they can also develop laboratory and safety skills.

Course Objectives:
The student should be able to:

- work safely and skillfully in a laboratory environment.
- demonstrate and use the scientific method and methods of measurement in performing experiments and using appropriate calculations in interpreting results.
- use laboratory skills and methods to perform and interpret experiments demonstrating concepts in chemistry.
- use laboratory skills and methods and knowledge of basic chemistry to design and perform simple original experiments and interpret results.

Course Content/Outline:

- Safety concepts and safety test; laboratory practices and rules
    - Scientific method and Measurement
- Chemical and physical changes
- Density and specific gravity
- Atoms and molecules, chemical formulas, molecular weights and moles
- Derivation and determination of composition; purity of samples
- Percent yield form chemical reactions
- Titration

- Structure of atoms and the periodic table
- Chemical bonding; compare and contrast covalent and ionic compounds
- Ph, Acids, and bases
- Salts
- Gases

Reading and Writing Across the Curriculum: Review of scientific papers and writing summaries and reports fulfill the requirement for reading and writing across the curriculum.

Grading/ Absence Policies:
Course grade will be based on the cumulative points. The recommended scale is:

90% and above	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

Students who miss 10% of class meetings will be advised to see a counselor. Students who merely stop attending and chose not to withdraw will earn an "F" for the course.

Students with Disabilities: Students with disabilities that may require assistance or accommodation or with questions related to any accommodations for testing, note takers, readers, etc. should contact the instructor as soon as possible. Students may also contact the Dean of Students with questions about such services.

Emergency Evacuation Procedure: A map of this floor is posted in the front of the building. This map marks the evacuation route and the Designated Rescue Area. This area is where emergency service personnel will go first to look for individuals who need assistance in exiting the building. Student who may need assistance should identify themselves to the teaching faculty.

Academic Dishonesty: A student will receive a grade of zero on an assignment or test for the following: cheating, plagiarism, or collusion. Any student who commits or attempts to commit any of these acts will be subject to disciplinary proceedings as detailed in the Student Discipline Procedures Outlined in the Student Handbook.